What is claimed is:

1.   A method for exchanging a first detector module (m), including K channels (x) from k to j in an X-ray detector in a computed tomograph including a module configuration a with a total of M detector modules and KxM channels, for a second detector module (m'), wherein the first detector module includes an associated correction table ($T_{S(a,m,x)}$), for eliminating temperature-dependent signal changes, which is dependent on the respective module configuration of the detector and is recreatable following the exchange of a detector module, comprising:

creating, for the first and second detector modules in a detector in a reference computed tomograph including the module configuration b, a respective correction table ($T_{S(b,m,x)}$, $T_{S(b,m'x)}$);

ascertaining difference values in the correction tables; and

calculating a new correction table ($T_{S(a,m',x)}$), for operating the second detector module (m') in the computed tomograph including the module configuration a, by transferring the ascertained difference values to the old correction table ($T_{S(a,m,x)}$).

2.   The method as claimed in claim 1, wherein individual values for the new correction table ($T_{S(a,m'x)}$) are calculated on the following basis:

$$S_{a,m',x} = S_{b,m',x} + \frac{1}{K} \left(\sum_{i=k}^{j} S_{a,m,i} - \sum_{i=k}^{j} S_{b,m,i} \right)$$

where N is the number of channels of a detector module from channel k to j, $S_{n,o,p}$ corresponds to the correction value S for the module configuration n with the detector module o, and the channel x is an element of the channels k to j.

3.   The method as claimed in claim 1, wherein, in the event of failure of a channel (i) of the detector module (m) which is to be exchanged, the signal values

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(S) for the channel are calculated by at least one of interpolating and extrapolating adjacent channels.

4.   The method as claimed in claim 1, wherein a channel (i) is regarded as being faulty if the measured signal values (S) for the channel (i) exceed a prescribed limit value.

5.   The method as claimed in claim 1, wherein the new correction table $(T_{S(a,m',x)})$ is created by reverting to a correction table $(T_{S(a,m,x)})$ measurement which was created and archived prior to failure.

6.   The method as claimed in claim 1, wherein the new correction table $(T_{S(a,m',x)})$ is created by reverting to a correction table $(T_{S(b,m,x)})$ measurement which was created and archived prior to failure, preferably before the computed tomograph was delivered.

7.   The method as claimed in claim 1, wherein the first and second detector modules are at the same position.

8.   The method as claimed in claim 1, wherein the differences in the correction tables are ascertained in an area of the channels of the detector module which is to be exchanged.

9.   The method as claimed in claim 2, wherein, in the event of failure of a channel (i) of the detector module (m) which is to be exchanged, the signal values (S) for the channel are calculated by at least one of interpolating and extrapolating adjacent channels.

10.   The method as claimed in claim 3, wherein a channel (i) is regarded as being faulty if the measured signal values (S) for the channel (i) exceed a prescribed limit value.

11. The method as claimed in claim 5, wherein the new correction table $(T_{S(a,m',x)})$ is created by reverting to a correction table $(T_{S(a,m,x)})$ measurement which was created and archived before the computed tomograph was delivered.

12. The method as claimed in claim 3, wherein the new correction table $(T_{S(a,m',x)})$ is created by reverting to a correction table $(T_{S(a,m,x)})$ measurement which was created and archived prior to failure.

13. The method as claimed in claim 4, wherein the new correction table $(T_{S(a,m',x)})$ is created by reverting to a correction table $(T_{S(a,m,x)})$ measurement which was created and archived prior to failure.

14. The method as claimed in claim 6, wherein the new correction table $(T_{S(a,m',x)})$ is created by reverting to a correction table $(T_{S(b,m,x)})$ measurement which was created and archived before the computed tomograph was delivered.

15. The method as claimed in claim 3, wherein the new correction table $(T_{S(a,m',x)})$ is created by reverting to a correction table $(T_{S(b,m,x)})$ measurement which was created and archived prior to failure.

16. The method as claimed in claim 4, wherein the new correction table $(T_{S(a,m',x)})$ is created by reverting to a correction table $(T_{S(b,m,x)})$ measurement which was created and archived prior to failure.